

Section 4.2.2 Los Alamos Computer Science Institute

IP Addendum to accommodate the FY02 Budget Revision

4.2.2.2.3 Numerical Methods

Delete Paragraph

In the area of Linear Solvers (Michele Benzi, Emory University; Miroslav Tuma, CAS, Czech Republic) we hope to develop robust parallel sparse approximate inverse (PAINV) codes. While we currently have a robust implementation for SPD matrices that is well suited for 2D problems, 3-D problems, require a different partitioning strategy (based on Nested Dissection) that needs to be implemented and tested. A nonsymmetric version of the code, which may not be immediately needed by the code teams, is at a more rudimentary stage of development. Additional work will include the development of block versions of PAINV, targeted at systems of PDE's. Part of the research needed is to determine whether this block code would benefit any of the codes of ASCI interest.

Replace Paragraph

Issues, Constraints, and Assumptions: The funding levels for this effort need to be maintained at the current level or grow if development is to accelerate. We will also need to have a high level of interaction with Los Alamos staff. If the SFITL were to be funded, this would be an ideal venue for these interactions.

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Issues, Constraints, and Assumptions: In response to budget adjustments, milestones for this subsection will be moved into FY03. With in the contratints of the new budget, we will endeavor to have a high level of interaction with Los Alamos staff, but new start staffing to facilitate cleared interaction may need to be deferred to FY03. Additional staffing for technology transfer will be deferred until FY03.

4.2.2.4.1 Rice University's Santa Fe Information Technology Laboratory (SFITL)

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4.2.2.4.3 Collaboration and Management

Delete Co-PI

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